Standard Operating Procedures for Latent Print Processing with Powders

1 Scope

Powdering is the application of finely ground, colored powder, which adheres to moisture, oils, and other residues, used by latent print personnel to develop latent prints.

2 Equipment/Materials/Reagents

a) Nonmagnetic powders:
- Black powder
- Gray/silver powder
- White powder
- Other colors of powder may be available

b) Magnetic powders:
- Black magnetic powder
- Gray/silver magnetic powder
- Other colors of powder may be available

c) Applicators:
- Magnetic wand
- Camel-hair brush
- Fiberglass filament brush
- Other types of brushes may be available
- Cotton batting

d) Dish

3 Standards and Controls

Not applicable.

4 Sampling or Sample Selection

Not applicable.

5 Procedures

5.1 Application

5.1.1 Nonmagnetic Powders

a) Pour needed amount of powder into a small pile or dish.

b) Dip brush bristle tips into powder.

c) Gently brush surface.

d) Brush in direction of any ridges that begin to appear.

e) Build powder onto ridges and stop when latent print reaches a point of sufficient development.

f) For additional clarity, cotton may be swabbed across the specimen to increase contrast between the print(s) and the surface of the specimen.

5.1.2 Magnetic Powders

a) Place magnetic wand with magnet engaged into a container of magnetic powder - this will produce a bristle-like effect at the end of the wand when withdrawn.

b) Apply, ensuring that only the powder touches the surface.

c) When finished, release excess powder into container by disengaging the magnet.

d) For additional clarity, remove excess powder from the print(s) and surrounding area using an empty magnetic wand.

5.2 Storage

Powders may be stored in any approved laboratory containers.

5.3 Shelf Life

Powders have an indefinite shelf life (may require desiccating for longer term storage).

6 Calculations

Not applicable.

7 Measurement Uncertainty

Not applicable.

8 Limitations

Not applicable.

9 Safety

See FBI Laboratory Safety Manual for appropriate information.

10 References

FBI Laboratory Safety Manual, Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Sodhi, G. S. and Kaur, J. "Powder Method for Detecting Latent Fingerprints: A Review". *Forensic Science International*. 120(3):172.

Trozzi, T. A., Schwartz, R. L., and Hollars, M. L. *Processing Guide for Developing Latent Prints*, FBI Laboratory, Washington DC, 2001.

Rev. #	Issue Date	History
0	01/13/14	Original document issued. Derived from Discontinued Latent Print Operations Manual, Standard Operating Procedures for Processes Used to Develop Latent Prints. The original LPU Processing Manual consisted of a single document with a preamble and procedures for all processes. The current document separates each into its own separate document.
1	10/02/17	Section 1, latent print personnel added. Section 4 removed and remaining renumbered. Titles for Section 4 and Section 7 modified. Section 9, generalized. Updated for Biometrics Analysis Unit. References updated.

Approval

Redacted - Signatures on File